## II. REMARKS

Claims 1-39 and 41 are pending in this application. By this amendment, claims 1, 30, and 39 have been amended. Claim 40 has been replaced by claim 41. Applicants do not acquiesce in the correctness of the rejections and reserve the right to present specific arguments regarding any rejected claims not specifically addressed. Further, Applicants reserve the right to pursue the full scope of the subject matter of the original claims in a subsequent patent application that claims priority to the instant application. Reconsideration in view of the following remarks is respectfully requested.

In the Office Action, the information disclosure statement filed on 8/24/2001 allegedly fails to comply with 37 CFR 1.98(a)(2). Applicants have included pages 43-46 of IBM TDB Vol. 39, No. 10 in response to this rejection. Accordingly, Applicants submit that the information disclosure statement now complies with 37 CFR 1.98(a)(2).

## A. ESSENTIAL MATERIAL BY REFERENCE

The office has asserted that the specification is improper because it incorporates by reference US application 09/760,383, which itself incorporates essential material by reference to EP 188193. Applicants respectfully traverse the Office's position and assert that US 09/760,383 does not incorporate "essential material" by reference to EP 188193. 37 C.F.R § 1.57(c) states that, " '[e]ssential material' may be incorporated by reference, but only by way of an incorporation by reference to a *U.S. patent application publication*, which patent or patent application publication does not itself incorporate such essential material by reference." (Emphasis added) First, Applicants note that EP 188193 is a European patent. As a result, US 09/760,383 could not incorporate by reference essential material from that European patent, by

rule. (*See* 37 C.F.R. §1.57(c)) Consequently, the Office's assertion that US 09/760,383 incorporates essential material by reference must be incorrect.

In the alternative, Applicants assert that only "nonessential material" is incorporated by reference to US 09/760,383. 35 C.F.R. § 1.57(d) allows other, "nonessential material" to be incorporated by reference to U.S. patents. (*See* 35 C.F.R. § 1.57(d)) Applicants have incorporated by reference, "...reduction includ[ing] a process of entropy decoding the image, changing quantized coefficients and quantization tables (Q-tables), and entropy recoding the image..." (*See* specification, p. 13, line 22 – p. 14, line 2). This serves as a preprocessing step before JPEG encoding. (Id. at line 5) Entropy encoding and JPEG encoding are well known in the art. As a result, incorporation by reference is not required to provide a complete and adequate written description of the present invention. A person skilled in the art would understand the manner and process of making the present invention, and the incorporation by reference was merely included for thoroughness.

In view of the foregoing, Applicants request withdrawal of the objection.

**B. NON-STATUTORY SUBJECT MATTER**

In the Office Action, claim 40 is rejected under 35 U.S.C. §101 as allegedly being directed to non-statutory subject matter. Despite Applicants' representative's use of this format extensively for many years without rejection, Applicants have cancelled claim 40 and replaced it with claim 41 written in another common program product format. Applicants submit that claim 41 does not recite only program code. Accordingly, Applicants request that the rejection be withdrawn.

**C. REJECTION OF CLAIMS 1-4, 11-12, 14-19, 30-36, AND 38-40 UNDER 35 U.S.C. 102(e)**

The Office has asserted that independent claims 1, 30, 39, and 40 are anticipated by Keller. Applicants respectfully traverse this rejection. Applicants assert that Keller fails to disclose each and every limitation of the claimed invention. For example, with respect to claim 1, Applicants respectfully submit that Keller fails to disclose, *inter alia*, "...reducing a storage size of the image from a base level to at least one secondary level based on reduction criteria which are independent of image capture..." (*See* claim 1). It is the Office's position that the size reduction criteria is disclosed in §§ 0084-0091 of Keller, including information of the doctor or group of doctors using the images that is information of user selection. (Office Action, pp. 4 and 6) It is also the Office's position that size reduction criteria is disclosed in §§ 0061-0071, where, "...[t]he server 1 evaluates each input image and bases on at least criteria set forth in sections 0064-0071 to decide compression ratio and storage..." (Office Action, p. 5). Applicants respectfully traverse the Office's position and submit that the claimed invention including reduction criteria is not disclosed, *inter alia*, by Keller.

Keller teaches a medical image network where, "image data is acquired at workstation 2 by accessing image server 1 and specifying that image data stored in image server 1 be transmitted; images are displayed at workstation 2 and diagnosis can be performed." (¶ 0055) The compression ratio of irreversible compressed image data depends on the image capture technique, such as, "...the input modality by which original image data S org was obtained, the part on which an examination was conducted or the method of examination." (¶ 0064) Additionally, "...image quality parameters representing the image quality of original image data S org and irreversible compressed image data S1 and S2 respectively, can be attached thereto."

(¶ 0075) Also, usage purpose parameters may be assigned to S, S1, and S2. For example, "...a usage purpose parameter represents the purpose for which an image represented by image data S is to be used, for example, if original image data S org is to be used in performing diagnosis; a parameter 'diagnosis' is assigned. On the other hand, irreversible compressed image data S1 has a compression ratio of 1/20 and is to be used as a reference image, therefore, a parameter 'reference' is assigned thereto." (¶ 0077) Therefore, certain criteria, such as image quality or usage purpose, are added to the respective images *after* the initial compression, and do not dictate the reduction of storage size. Paragraph 0084 teaches that a doctor may select, "...the version, image quality, usage purpose and or progressive expansion level...," but does not teach reducing the storage size based on those criteria. In Keller, the images are compressed, and parameters are assigned to the images based on the typical resolution needs for a given medical evaluation. (¶ 0077) Paragraphs 0085-0090 disclose factors that determine which *version* of S is to be transmitted, after reduction has already taken place.

As noted above, reduction in Keller depends on the image capture technique, such as, "...the input modality by which original image data S org was obtained, the part on which an examination was conducted or the method of examination." (¶ 0064) The input modality may be a CT, MRI, or CR apparatus, where "...the relation between compression ratio and image quality varies according to the input modality..." (¶ 0076). Therefore, the method or apparatus used to capture image data dictates the compression ratio in Keller.

The present invention determines the amount of reduction based on reduction criteria. The evaluation module "determines the state of each image relative to reduction criteria and determines the applicable reduction/purging rule to be implemented by size reduction module..." (Specification, p. 13). "The factors that make up the reduction criteria can be selectively chosen

and, hence, can differ from entity-to-entity, object-to-object, etc. A designation may be in the form of a simple list of reduction criteria values or may be a specially created alpha-numeric code indicative of reduction criteria values. (Specification, p. 10) Further, some factors are based on real-time attributes, such as "...available storage, suspicious activity, time since object creation, and time since object imaging..." (Specification, p. 16) Reduction criteria may also include prior size reduction, prior access by user, object value, user account type, volume of objects per user account, user total account value, a user selection, user fees paid, user account history, and object part imaged. (Specification, pp. 16-18) Therefore, the present invention allows for reduction criteria to be selected and determined for any image, regardless of how the image is captured. Keller fails to disclose, *inter alia*, the reduction criteria required by Applicants' invention. Keller determines reduction based upon the apparatus and/or method used to capture the image. (¶ 0064) Once the input modality and image object has been determined in Keller, the image compression ratios are fixed. (¶0076) The present invention allows for the "...reducing and replacement of the starting image with the reduced image," (Specification, p. 13) and the reduction of images over time, based on reduction criteria. (Specification, p. 10) Accordingly, Keller fails to disclose, *inter alia*, reduction to be based on reduction criteria, as required by Applicants' invention.

Applicants submit that Keller fails to disclose each and every claim limitation. Accordingly, Applicants assert that independent claims 1, 30, 39, and 41 represent allowable subject matter and request the withdrawal of the rejection. Claims 2-20 are dependent upon claim 1, and claims 31-38 are dependent upon claim 30. Applicants submit that those dependent claims are allowable for the same reasons stated above, as well as for their own additional features.

**D. REJECTION OF CLAIMS 21-23 AND 25-29 UNDER 35 U.S.C. 103(a)**

The Office has asserted that claims 21-23 and 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keller in view of Morris et al. (US 5,153,936), hereafter "Morris." These rejections are respectfully traversed for the reasons stated below.

Applicants assert that the combined references cited by the Office fail to teach or suggest each and every element of the claimed invention. For example, with respect to claim 21, Applicants respectfully submit that both Keller and Morris fail to teach or suggest, *inter alia*, "repeating the steps of reducing and allowing after expiration of the predetermined duration."

As stated by the Office, "...Keller does not explicitly teach the step of allowing and repeating recited in Claim 21." (*See* Office Action, p. 8) It is the Office's position that Morris teaches repeating steps of reducing and allowing after expiration of the predetermined duration. (Office Action, p. 9) However, Morris teaches that, "[i]f the compressed lower resolution image data is unavailable on DASD because the predetermined period has expired, the image host processor retrieves the compressed higher resolution image data stored in optical storage." (Col. 9, lines 37-42) Morris further discloses, "[t]he decompressed higher resolution image data is stored in the higher resolution bit plane memory 24 and converted to lower resolution image data by the resolution modification unit. Finally, the lower resolution data is stored in the lower resolution bit plane memory 28 and displayed on the image display 30." (Col. 9, lines 47-53) Therefore, Morris teaches retrieval and decompression of an original high-resolution image if the time period has expired and the low-resolution image has been deleted. (Col. 9, lines 37-53) In contrast, claim 21 of the present invention requires, *inter alia*, "repeating the steps of reducing and allowing after expiration of the predetermined duration." The present invention teaches multiple evaluations of the same image based on reduction criteria, with the ability to set the

time duration between evaluations and potential reductions. (*See* Specification, p. 15, lines 19-20) For example, "[a] bank may implement reduction/purging rules to provide secondary level 1 for the first month, secondary level 2 for the next month, and secondary level 3 for the next six (6) years." (*See* Specification, p. 15, lines 5-7) Morris creates two identical lower resolution images, wherein the second lower resolution image is created from the original high-resolution data, if the first lower resolution image has been deleted. (Column 9, lines 37-53) Therefore, Morris and Keller fail to teach or suggest, *inter alia*, the step of "repeating the steps of reducing and allowing after expiration of the predetermined duration."

In summary, neither reference discloses or suggests, *inter alia*, the step of, "repeating the steps of reducing and allowing after expiration of the predetermined duration," (*See* Claim 21). Applicants submit that the Office has failed to establish a prima facie case of obviousness because the prior art references do not teach or suggest all the claim limitations. Accordingly, Applicants assert that independent claim 21 represents allowable subject matter and request the withdrawal of the rejection. Claims 22-23 and 25-29 are dependent upon claim 21. Applicants submit that those dependent claims are allowable for the same reasons stated above, as well as for their own additional features.

## III. CONCLUSION

Applicants respectfully submit that the application is in condition for allowance. Should the Examiner believe that anything further is necessary to place the application in better condition for allowance, he is requested to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

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